REMARKS

Claims 1, 2, 4-9, 16-17 and 19-33 are pending and under consideration in the above-identified application.

In the Office Action of March 5, 2008, Claims 1, 2, 4-9, 16-17 and 19-33 were rejected.

In this Amendment, Claims 1, 16, 27, 30, 32 and 33 are amended. No new matter has been introduced as a result of this Amendment.

I. 35 U.S.C. § 102 Anticipation Rejection of Claims

Claims 1, 2, 4-8, 16, 17, 19-23 and 27-33 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Fox* (U.S. Patent No. 6,566,697). Although Applicant respectfully traverses this rejection, Claims 1, 16, 27 and 30 were amended to clarify the invention and remove any ambiguities that may have been at the basis of this rejection.

In relevant part, each of the independent claims 1, 16, 27, 30, 32 and 33 now recite:

"a first isolation channel layer having a first conductivity type formed at an interface of a gate insulation film of the transfer transistor when the gate electrode of the transfer transistor is biased with a negative voltage while in the off state to inhibit the flow of a current from the transfer transistor to the photoelectric converting element"

…and

"a second isolation channel layer having a first conductivity type formed at an interface of a gate insulation film of the drain transistor when the gate electrode of the drain transistor is biased with a negative voltage while in the off state to inhibit the flow of a current from the drain transistor to the photoelectric converting element."

This is clearly unlike *Fox,* which fails to disclose or even suggest a first isolation channel layer having a first conductivity type formed at an interface of a gate insulation film of the transfer transistor when the gate electrode of the transfer transistor is biased with a negative voltage while in the off or a second isolation channel layer having a first conductivity type formed at an interface of a gate insulation film of the drain transistor when the gate electrode of the drain transistor is biased with a negative voltage while in the off state. Instead, Fox discloses a pinned diode, which does not include any gate insulation film and therefore is incapable of producing a first conductivity channel layer at an interface of a gate insulation film of the

transfer transistor or a second conductivity channel layer at an interface of a gate insulation film of the drain transistor. See, U.S. Pat. No. 6,566,697, Col. 9, l. 6-65.

Indeed, the result of this channel layer formation is described in at least paragraph [0085] of the specification (emphasis added):

[0085] This is because, by biasing the transfer gate electrode toward a negative voltage, a **P-type channel is formed at the interface of a gate oxide film in the transfer gate part**, thereby preventing a dark current from an interfacial level similarly to the buried PD.

It is submitted that *Fox* does not teach or suggest the formation of any isolation channel layer or even the formation of a gate insulation film. Accordingly, it is submitted that Claim 1 is patentable over *Fox*, as are dependent Claims 2, and 4-8.

As each independent Claims 16, 27, 30, 32 and 33 also recites the same distinguishable limitation as that of Claim 1, then each one of these claims is also patentable over *Fox*, as are its dependent claims, for at least the same reasons.

Accordingly, Applicant respectfully requests that these claim rejections be withdrawn.

II. 35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 9 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Fox*. Applicant respectfully traverses this rejection.

Claims 2, 4-8, 16, 17, 19-23 and 27-31, which depend either directly or indirectly from Claims 1, 16, 27 and 30, shown above to be patentable over *Fox,* are also patentable for at least the same reasons.

Accordingly, Applicant respectfully requests that these claim rejections be withdrawn.

III. Conclusion

In view of the above amendments and remarks, Applicant submits that Claims 1, 2, 4- 9, 16, 17 and 19-33 are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Respectfully submitted,

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